# Chairman's Air Pollution Seminar Series

***Thursday, January 18, 2001***
***2:00 p.m. to 3:30 p.m.***
***Room 550, Fifth Floor, Cal/EPA Building***

## The Impacts of Emissions from Asia on Local/Regional/Global Air Quality

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Fueled by high population growth and vibrant economies, energy consumption in Asia currently
represents ~20% of the world total, and its share is estimated to grow to 30% by 2015. Because fossil
fuels will provide much of this energy, emissions of greenhouse gases and air pollutants such as sulfur
and nitrogen oxides and particulates are projected to dramatically increase. The impacts of Asia's
growth in emissions will have wide-ranging consequences. The resulting environmental impacts, including urban pollution and acid rain are already severe and are expected to intensify. Taking China as an example, in 1995 98% of China's cities monitored for total suspended particulates and more than 50% of the cities monitored for sulfur dioxide exceeded the World Health Organization (WHO) guidelines. In addition, the long-range transport and fate of pollutants away from Asia is an area of increasing scientific interest and political concern because countries are receiving increasing amounts of pollutants fron neighboring and even distant countries. In this seminar we discuss Asian emissions and their subsequent impact on air quality at local/regional/global scales. The changing trend ir Asia emissions, the challenges in quantifiying the role that particles play in Asian air quality, and the growing concern regarding the impact of Asia on the air quality of the Pacific Basin will be discussed.

**Gregory R. Carmichael** – *Is a Professor of the Department of Chemical & Biochemical Engineering, and Co-Director of the Center for Global & Regional Environmental Research, at the University of Iowa. His main interests are the development and application of models for the analysis of long range transport of acidic and photochemical pollutants on urban, regional and global scales. He has worked extensively on issues of long-range transport of pollutants in Asia, and the impact of Asia development on the environment. He has received support for his work in Asia from NSF, NASA, NOAA (Global Change Program), DOE, and The World Bank and the Asian Development Bank. He has over 150 refereed journal publications, serves on numerous editorial boards is pastchair of the American Meteorological Society's Committee of Atmospheric Chemistry, and serves as consultant to the World Meteorological Organization on issues related to air quality.*